KT600-AA BIOS Setup

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BIOS Setup

Introduction

This manual discussed Award™ Setup program built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

The Award BIOS™ installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports Intel Pentium $^®$ 4 processor input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

Adding important has customized the Award BIOS™, but nonstandard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

These AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD (Extended System Configuration Data) write is supported.

EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

APM Support

These AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management (APM) specification. Power management features are implemented via the System Management Interrupt (SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

ACPI Support

Award ACPI BIOS support Version 1.0 of Advanced Configuration and Power interface specification (ACPI). It provides ASL code for power management and device configuration capabilities as defined in the ACPI specification, developed by Microsoft, Intel and Toshiba.

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PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

DRAM Support

DDR SDRAM (Double Data Rate Synchronous DRAM) are supported.

Supported CPUs

This AWARD BIOS supports the AMD CPU.

Using Setup

In general, you use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Move Enter	Move to the item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+ Key	Increase the numeric value or make changes
- Key	Decrease the numeric value or make changes
Esc key	Main Menu – Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu – Exit Current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F7 key	Load the optimized defaults
F10 key	Save all the CMOS changes and exit

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1 Main Menu

Once you enter Award BIOS™ CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

!! WARNING !!

The information about BIOS defaults on manual (**Figure 1,2,3,4,5,6,7,8,9**) is just for reference, please refer to the BIOS installed on board, for update information.

■ **Figure 1: Main Menu**

Standard CMOS Features

This submenu contains industry standard configurable options.

Advanced BIOS Features

This submenu allows you to configure enhanced features of the BIOS.

Advanced Chipset Features

This submenu allows you to configure special chipset features.

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Integrated Peripherals

This submenu allows you to configure certain IDE hard drive options and Programmed Input/ Output features.

Power Management Setup

This submenu allows you to configure the power management features.

PnP/PCI Configurations

This submenu allows you to configure certain "Plug and Play" and PCI options.

PC Health Status

This submenu allows you to monitor the hardware of your system.

Frequency/ Voltage Control

This submenu allows you to change CPU Vcore Voltage and CPU/PCI clock. **(However, this function is strongly recommended not to use.   Not properly change the voltage and clock may cause the CPU or M/B damage!)**

Load Optimized Defaults

This selection allows you to reload the BIOS when the system is having problems particularly with the boot sequence.   These configurations are factory settings optimized for this system. A confirmation message will be displayed before defaults are set.

Load Optimized Defaults (Y/N)? N

Set Supervisor Password

Setting the supervisor password will prohibit everyone except the supervisor from making changes using the CMOS Setup Utility.   You will be prompted with to enter a password.

Enter Password:

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Set User Password

If the Supervisor Password is not set, then the User Password will function in the same way as the Supervisor Password.   If the Supervisor Password is set and the User Password is set, the "User" will only be able to view configurations but will not be able to change them.

```
Enter Password:
```

Save & Exit Setup

Save all configuration changes to CMOS(memory) and exit setup. Confirmation message will be displayed before proceeding.

```
SAVE to CMOS and EXIT (Y/N)? Y
```

Exit Without Saving

Abandon all changes made during the current session and exit setup.   confirmation message will be displayed before proceeding.

```
Quit Without Saving (Y/N)? N
```

Upgrade BIOS

This submenu allows you to upgrade bios.

```
BIOS UPDATE UTILITY (Y/N)? N
```

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2 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the<PgUp> or <PgDn> keys to select the value you want in each item.

■ **Figure 2: Standard CMOS Setup**

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Main Menu Selections

This table shows the selections that you can make on the Main Menu.

| Item	Options	Description
Date	mm : dd : yy	Set the system date. Note that the 'Day' automatically changes when you set the date.
Time	hh : mm : ss	Set the system internal clock.
IDE Primary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options
IDE Primary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
Drive A Drive B	360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5 in 2.88M, 3.5 in None	Select the type of floppy disk drive installed in your system.
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

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Item	Options	Description
Halt On	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/ Key	Select the situation in which you want the BIOS to stop the POST process and notify you.
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of extended memory detected during boot up.
Total Memory	N/A	Displays the total memory available in the system.

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3 Advanced BIOS Features

■ **Figure 3: Advanced BIOS Setup**
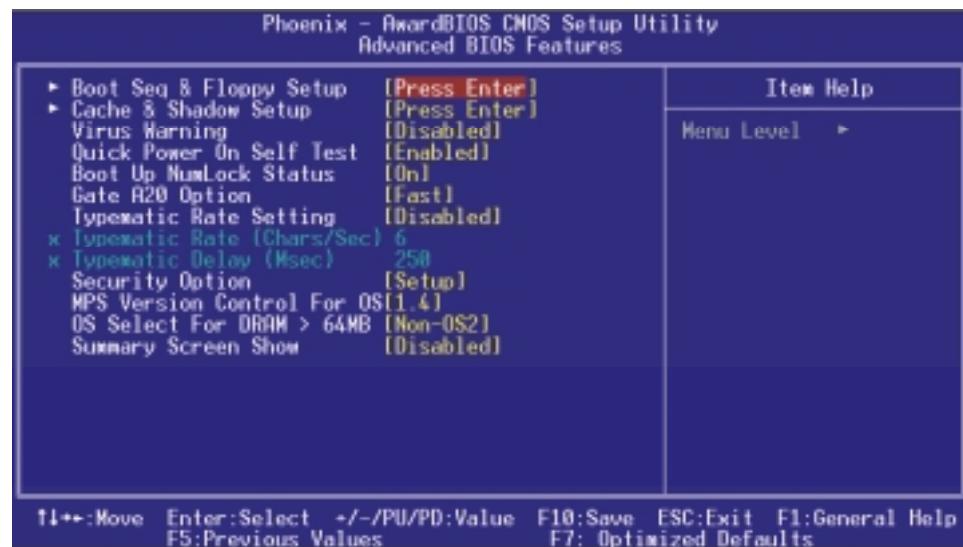
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Boot Seq & Floppy Setup

This item allows you to setup boot seq & Floppy.

■ **Figure 3.1:Boot Seq & Floppy Setup**

```
                Phoenix - AwardBIOS CMOS Setup Utility
                        Boot Seq & Floppy Setup

        First Boot Device        [Floppy]              Item Help
        Second Boot Device       [HDD-0]
        Third Boot Device        [CDROM]           Menu Level   ▶▶
        Boot Other Device        [Enabled]
                                                   Select Your Boot
        Swap Floppy Drive        [Disabled]        Device Priority
        Boot Up Floppy Seek      [Enabled]






        ↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General H
                   F5:Previous Values              F7: Optimized Defaults
```

● **First/ Second/ Third/ Boot Other Device**
These BIOS attempt to load the operating system from the devices in the sequence selected in these items.
The Choices: Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, LAN, Disabled.

● **Swap Floppy Drive**
For systems with two floppy drives, this option allows you to swap logical drive assignments.
The Choices: Disabled (default), Enabled.

● **Boot Up Floppy Seek**
Enabling this option will test the floppy drives to determine if they have 40 or 80 tracks. Disabling this option reduces the time it takes to boot-up.
The Choices: Enabled (default), Disabled

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Cache & Shadow Setup

This item allows you to setup cache & shadow setup.

■ **Figure 3.2: Cache & Shadow Setup**
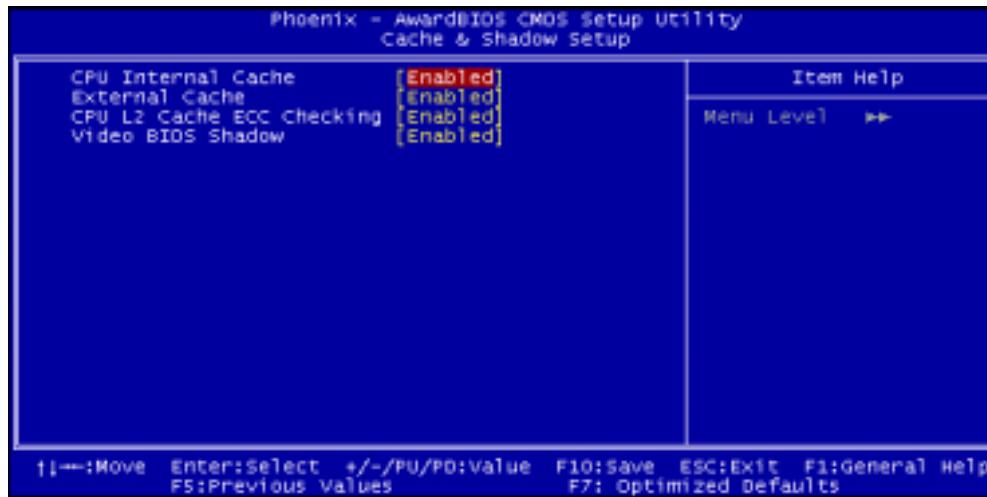
● **CPU Internal Cache**
Depending on the CPU/chipset in use, you may be able to increase memory access time with this option.
Enabled (default)   Enable cache.
Disabled   Disable cache.

● **External Cache**
This option enables or disables "Level 2" secondary cache on the CPU, which may improve performance.
Enabled (default)   Enable cache.
Disabled   Disable cache.

● **CPU L2 Cache ECC Checking**
This item allows you to enable/disable CPU L2 Cache ECC Checking.
The Choices: Enabled (default), Disabled.

● **Video BIOS Shadow**
Determines whether video BIOS will be copied to RAM for faster execution.
Enabled (default)   Optional ROM is enabled.
Disabled   Optional ROM is disabled.

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Virus Warning

This option allows you to choose the Virus Warning feature that is used to protect the IDE Hard Disk boot sector. If this function is enabled and an attempt is made to write to the boot sector, BIOS will display a warning message on the screen and sound an alarm beep.

Disabled (default)   Virus protection is disabled.
Enabled   Virus protection is activated.

Quick Power On Self Test

Enabling this option will cause an abridged version of the Power On Self-Test (POST) to execute after you power up the computer.

Enabled (default)   Enable quick POST.
Disabled   Normal POST.

Boot Up NumLock Status

Selects the NumLock. State after power on.

On (default)   Numpad is number keys.
Off   Numpad is arrow keys.

Gate A20 Option

Select if chipset or keyboard controller should control Gate A20.

Normal   A pin in the keyboard controller controls Gate A20.
Fast (default)   Lets chipset control Gate A20.

Typematic Rate Setting

When a key is held down, the keystroke will repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be configured.

Disabled (default)
Enabled

Typematic Rate (Chars/Sec)

Sets the rate at which a keystroke is repeated when you hold the key down.

The Choices: 6 (default)**,** 8,10,12,15,20,24,30.

Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke.

The Choices: 250 (default)**,** 500,750,1000.

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Security Option

This option will enable only individuals with passwords to bring the system online and/or to use the CMOS Setup Utility.

System	A password is required for the system to boot and is also required to access the Setup Utility.
Setup (default)	A password is required to access the Setup Utility only.

This will only apply if passwords are set from the Setup main menu.

MPS Version Control For OS

The BIOS supports version 1.1 and 1.4 of the Intel multiprocessor specification.
Select version supported by the operation system running on this computer.
The Choices: 1.4 (default), 1.1.

OS Select For DRAM > 64MB

A choice other than Non-OS2 is only used for OS2 systems with memory exceeding 64MB.
The Choices: Non-OS2 (default), OS2.

Summary Screen Show

This item allows you to enable/ disable display the Summary Screen Show.
**The Choices: Disabled** (default), Enabled.

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4 Advanced Chipset Features

This submenu allows you to configure the specific features of the chipset installed on your system. This chipset manage bus speeds and access to system memory resources, such as DRAM.   It also coordinates communications with the PCI bus. The default settings that came with your system have been optimized and therefore should not be changed unless you are suspicious that the settings have been changed incorrectly.

■ **Figure 4: Advanced Chipset Setup**
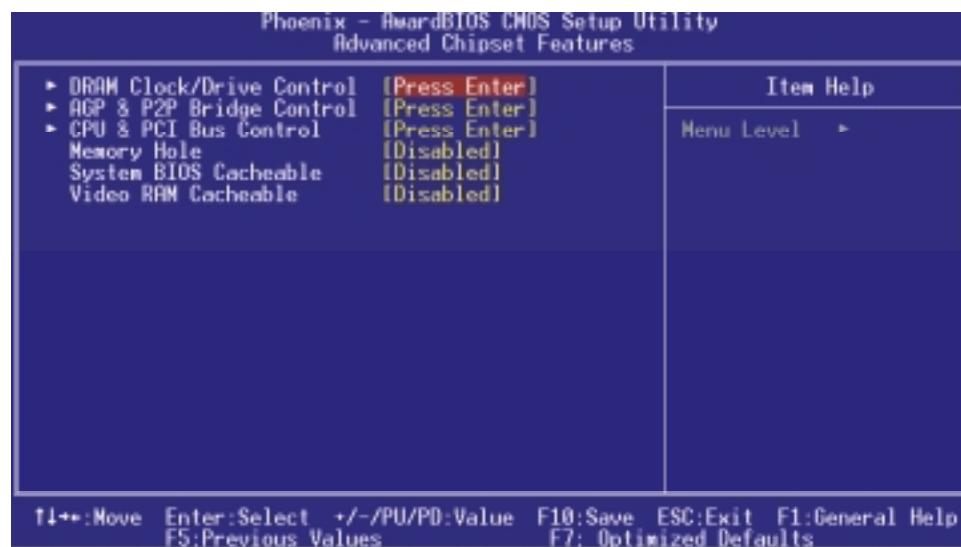
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DRAM Clock/Drive Control

To control the Clock/Drive. If you highlight the literal "Press Enter" next to the "DRAM Clock/Drive Control" label and then press the enter key, it will take you a submenu with the following options:

■ **Figure 4. 1: DRAM Clock/Drive Control**
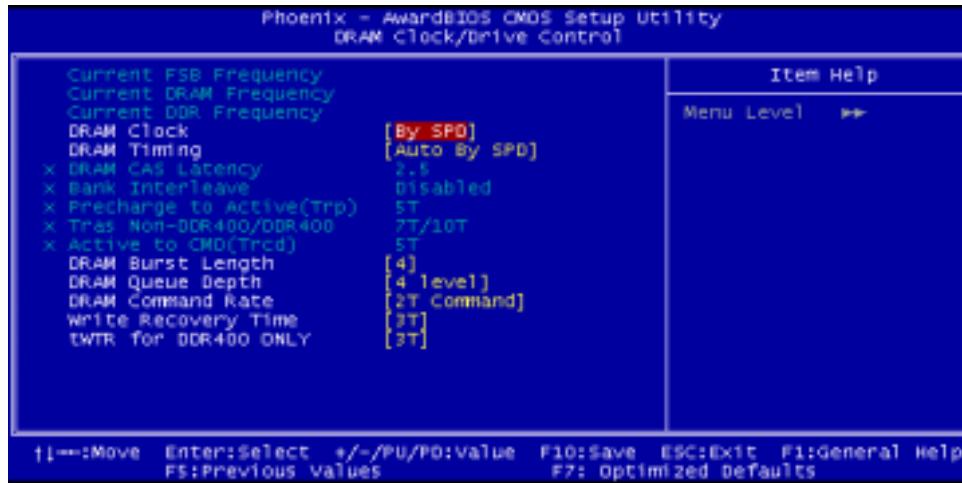
- ● **DRAM Clock**
  This item determines DRAM clock following 100MHz, 133MHz, 166MHz or By SPD.
  The Choices: 100MHz, 133MHz, **By SPD** (default), 166MHz.

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- **DRAM Timing**

This item determines DRAM clock/ timing follow SPD or not.
The Choices: Auto By SPD (default), Manual, Turbo, Ultra.

- **DRAM CAS Latency**

When DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing.
The Choices: **2.5** (default), 2.

- **Bank Interleave**

This item allows you to enable or disable the bank interleave feature.
The Choices: Disabled (default), 2 bank, 4 bank.

- **Precharge to Active (Trp)**

This items allows you to specify the delay from precharge command to activate command.
The Choices: 2T, 3T, 4T, **5T** (default).

Tras Non DDR 400/ DDR 400
This item allows you to choose Non DDR 400/ DDR 400
The Choices: 6T/ 8T, **7T/10T** (default), 5T/ 6T, 8T, 12T.

- **Active to Precharge (Tras)**

This items allows you to specify the minimum bank active time.
The Choices: 7T, **6T** (default).

Active to CMD (Trcd)
Use this item to specify the delay from the activation of a bank to the time that a read or write command is accepted.
The Choices: 2T, 3T, 4T, **5T** (default).

- **DRAM Burst Length**

The Choices: 4 (default), 8.

- **DRAM Queue Depth**

This item permits to place the depths of the memory. The deeper the depth is, the better is this function.
The Choices: 4 level (default), 2 level, 3 level.

- **DRAM Command Rate**

This item controls clock cycle that must occur between the last valid write operation and the next command.
The Choices: 1T Command, **2T Command** (default).

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● **Write Recovery Time**
This item allows you to select the recovery time.
The Choices: 2T, **3T** (default).
**tWTR for DDR400 only**
This item allows you to choose tWTR for DDR 400 only.
The Choices: 1T, 2T, **3T** (default).

AGP & P2P Bridge Control

If you highlight the literal "Press Enter" next to the "AGP & P2P Bridge Control" label and then press the enter key, it will take you a submenu with the following options:

■ **Figure 4. 2: AGP & P2P Bridge Control**
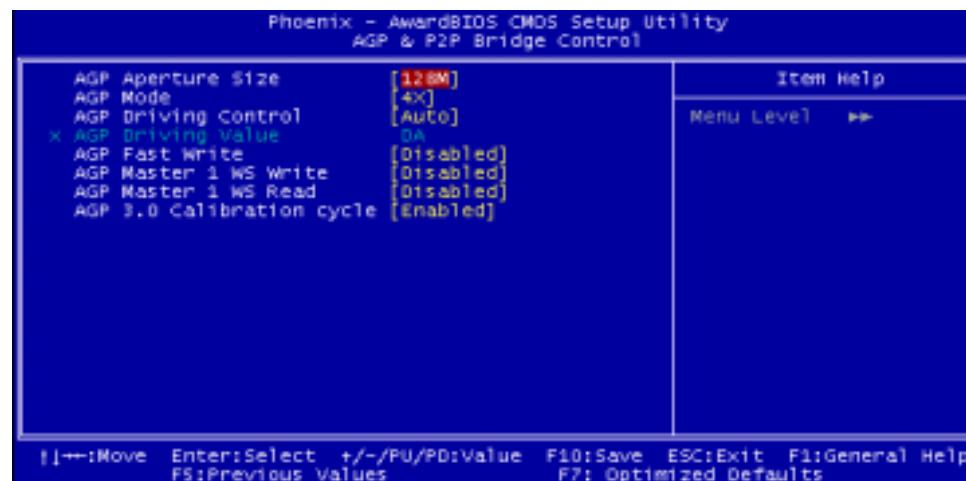
● **AGP Aperture Size**
Select the size of the Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.
The Choices: 64M, 256M, **128M** (default), 32M, 16M, 8M, 4M.

● **AGP Mode**
This item allows you to select the AGP Mode.
The Choices: **4X** (default), 2X, 1X.

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● **AGP Driving Control**
By choosing "Auto" the system BIOS will the AGP output Buffer Drive strength P Ctrl by AGP Card. By choosing "Manual", it allows user to set AGP output Buffer Drive strength P Ctrl by manual.
The Choices: Auto (default), Manual.

● **AGP Driving Value**
While AGP driving control item set to "Manual", it allows user to set AGP driving.
The Choices: DA (default).

● **AGP Fast Write**
The Choices: Enabled, **Disabled** (default).

● **AGP Master 1 WS Write**
When Enabled, writes to the AGP (Accelerated Graphics Port) are executed with one-wait states.
The Choices: Disabled (default), Enabled.

● **AGP Master 1 WS Write**
When Enabled, write to the AGP (Accelerated Graphics Port) are executed with one wait states.
The Choices: Disabled (default), Enabled.

● **AGP Master 1 WS Read**
When Enabled, read to the AGP (Accelerated Graphics Port) are executed with one wait states.
The Choices: Disabled (default), Enabled.

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CPU & PCI Bus Control

If you highlight the literal "Press Enter" next to the "CPU & PCI Bus Control" label and then press the enter key, it will take you a submenu with the following options:

■ **Figure 4. 3: CPU & PCI BUS Control**
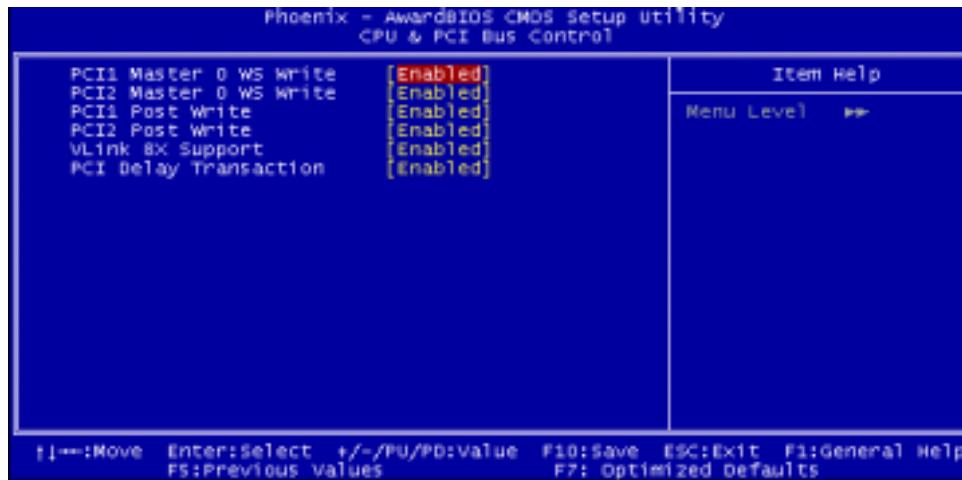
- ● **PCI1 Master 0 WS Write**
  When enabled, writes to the PCI bus are executed with zero-wait states.
  The Choices: Enabled (default), Disabled.

- ● **PCI2 Master 0 WS Write**
  When enabled, writes to the AGP bus are executed with zero-wait states.
  The Choices: Enabled (default), Disabled.

- ● **PCI1 Post Write**
  When Enabled, CPU writes are allowed to post on the PCI bus.
  The Choices: Enabled (default), Disabled.

- ● **PCI2 Post Write**
  When Enabled, CPU writes are allowed to post on the AGP bus.
  The Choices: Enabled (default), Disabled.

- ● **VLink 8X Support**
  This item allows you to enable or disable VLink 8X support.
  The Choices: Enabled (default), Disabled.

● **PCI Delay Transaction**
The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select Enabled to support compliance with PCI specification.
The Choices: Enabled (default), Disabled.

Memory Hole

When enabled, you can reserve an area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. Refer to the user documentation of the peripheral you are installing for more information.
The Choices: Disabled (default), 15M – 16M.

System BIOS Cacheable

Selecting the "Enabled" option allows caching of the system BIOS ROM at F0000h-FFFFFh, which can improve system performance. However, any programs writing to this area of memory will cause conflicts and result in system errors.
The Choices: Enabled, **Disabled** (default).

Video RAM Cacheable

Enabling this option allows caching of the video RAM, resulting in better system performance. However, if any program writes to this memory area, a system error may result.
The Choices: Enabled, **Disabled** (default).

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5 Integrated Peripherals

■ **Figure 5:Integrated Peripherals**
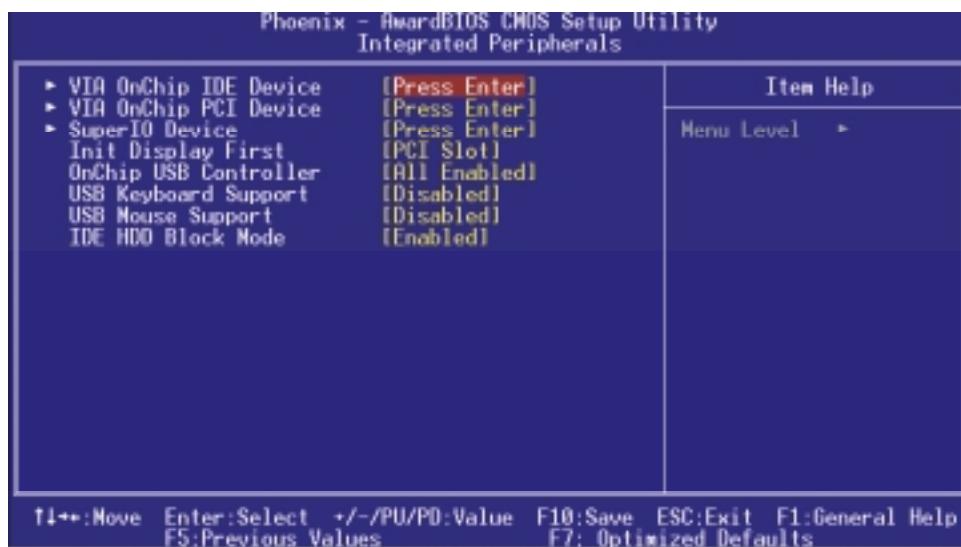
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VIA OnChip IDE Device

The chipset contains a PCI IDE interface with support for two IDE channels.
Select "Enabled" to activate the first and / or second IDE interface. If you install a primary and / or secondary add-in IDE interface, select "Disabled" to deactivate an interface. If you highlight the literal "Press Enter" next to the "Onchip IDE Control" label and then press the enter key, it will take you a submenu with the following options:

■ **Figure 5.1: VIA Onchip IDE Device**
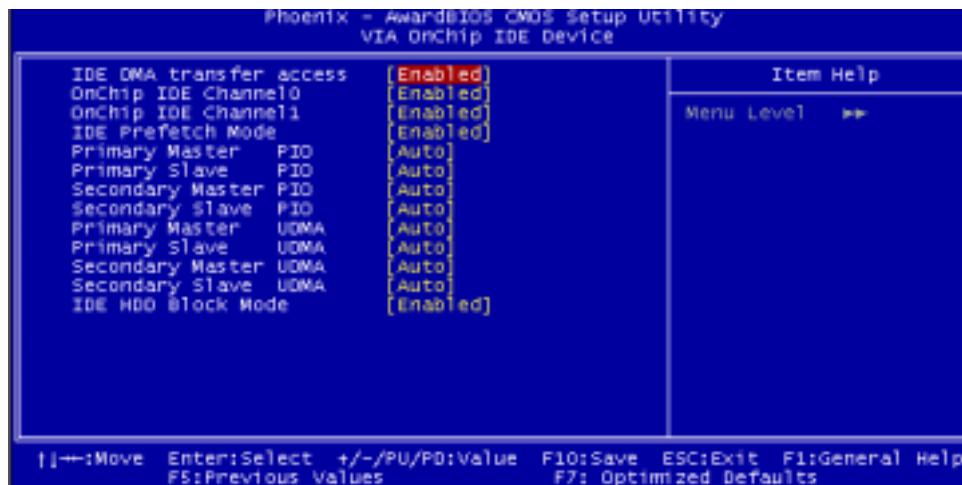
- **IDE DMA transfer access**
  The Choices:**Enabled**(default),disabled

- **OnChip IDE Channel 0/1**
  The motherboard chipset contains a PCI IDE interface with support for
  two IDE channels. Select "Enabled" to activate the first and/or second IDE interface. Select "Disabled" to deactivate an interface if you are going to install a primary and/or secondary add-in IDE interface.
  The Choices: Enabled (default), Disabled.

- **IDE Prefetch Mode**
  The "onboard" IDE drive interfaces supports IDE prefetching for faster drive access. If the interface does not support prefetching. If you install a primary and/or secondary add-in IDE interface, set this option to "Disabled".
  The Choices: Enabled (default), Disabled.

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● **IDE Primary / Secondary   Master / Slave PIO**
The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0 through 4 provides successively increased performance. In Auto mode, the system automatically determines the best mode for each device.
The Choices: Auto (default), Mode0, Mode1, Mode2, Mode3, Mode4.

● **IDE Primary / Secondary   Master / Slave UDMA**
Ultra DMA/100 functionality can be implemented if it is supported by the IDE hard drives in your system. As well, your operating environment requires a DMA driver (Windows 95 OSR2 or a third party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/100, select Auto to enable BIOS support.
**The Choices: Auto** (default), Disabled.

● **IDE HDD Block Mode**
If your IDE hard drive supports block mode, select "Enabled" for automatic detection of the optimal number of block read/ writes per sector the drive can support.
The Choices: Enabled (default), Disabled.

VIA OnChip PCI Device

If you highlight the literal "Press Enter" next to the "OnChip PCI Device" label and then press the enter key, it will take you a submenu with the following options:

■ **Figure 5.2: VIA Onchip PCI Device**
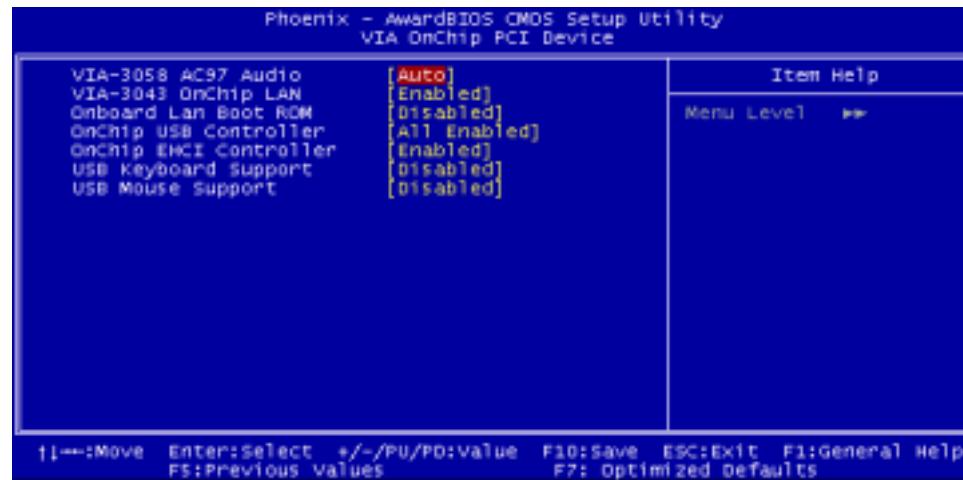
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- **USB2.0 Support**
This item allows you to enable or disable USB2.0.
The Choices: Enabled (default), Disabled.

- **VIA-3058 AC97 Audio**
This option allows you to control the onboard AC97 audio.
The Choices: Auto (default), Disabled.

- **VIA-3068 MC97 Modem**
This option allows you to control the onboard MC97 modem.
The Choices: Auto (default), Disabled.

- **VIA-3043 OnChip LAN**
This option allows you to control the onboard LAN.
The Choices: Enabled (default), Disabled.

- **Onboard LAN Boot ROM**
This item allows you to enable or disable Onboard LAN Boot ROM.
The Choices: Disabled (default), Enabled.

- **Onchip USB Controller**
Select "Enabled" if your system contains a Universal Serial Bus (USB) controller
and you have USB peripherals.
The Choices: All Enabled (default), All Disabled.

- **USB Keyboard/ Mouse Support**
This item allows you to enable or disable the USB Keyboard/ Mouse Legacy
Support.
The Choices: Disabled (default), Enabled.

- **1394 Fire Wire**
This item allows you to enable or disable 1394 Fire Wire.
The Choices: Enabled (default), Disabled.

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Super IO Device

If you highlight the literal "Press Enter" next to the "Super IO Device" label and then press the enter key, it will take you a submenu with the following options:

■ **Figure 5.3: Super I/O Device**
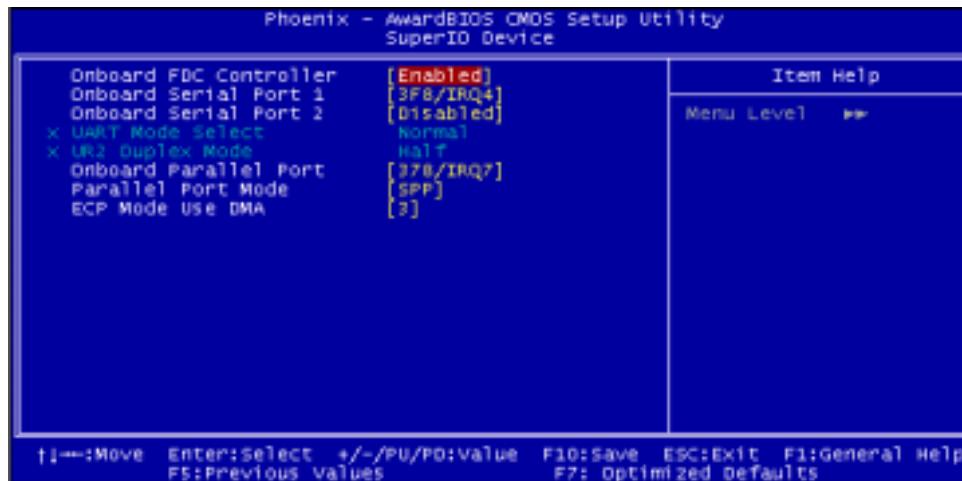
- ● **Onboard FDC Controller**
  Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If install and FDC or the system has no floppy drive, select Disabled in this field.
  The Choices: Enabled (default), Disabled.

- ● **Onboard Serial Port 1**
  Select an address and corresponding interrupt for the first and second serial ports.
  The Choices: Disabled, **3F8/IRQ4** (default), 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Auto.

- ● **Onboard Serial Port 2**
  Select an address and corresponding interrupt for the first and second serial ports.
  The Choices: Disabled, **2F8/IRQ3** (default), 3F8/IRQ4, 3E8/IRQ4, 2E8/IRQ3, Auto.

- ● **UART Mode Select**
  This item allows you to determine which Infra Red (IR) function of onboard I/O chip.
  The Choices: Normal (default), AS KIR, IrDA.

● **RxD, TxD Active**
This item allows you to determine which Infrared (IR) function of onboard I/O chip.
The Choices: Hi / Lo (default), Hi / Hi, Lo / Hi, Lo / Lo.

● **IR Transmission Delay**
This item allows you to enable/disable IR transmission delay.
The Choices: Enabled (default), Disabled.

● **UR2 Duplex Mode**
Select the value required by the IR device connected to the IR port. Full-duplex mode permits simultaneous two-direction transmission. Half-duplex mode permits transmission in one direction only at a time.
The Choices: Half (default), Full.

● **Use IR Pins**
Consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals.
The Choices: IR-Rx2Tx2 (default), RxD2, TxD2.

● Onboard Parallel Port
This item allows you to determine access onboard parallel port controller with which I/O Address.
The Choices: 378/IRQ7 (default), 278/IRQ5, 3BC/IRQ7, Disabled.

● **Parallel Port Mode**
The default value is SPP.
The Choices:
SPP(default)	Using Parallel port as Standard Printer Port.
EPP	Using Parallel Port as Enhanced Parallel Port.
ECP	Using Parallel port as Extended Capabilities Port.
ECP+EPP	Using Parallel port as ECP & EPP mode.

● **EPP Mode Select**
Select EPP port type 1.7 or 1.9.
The Choices: EPP 1.7(default), EPP1.9.

● ECP Mode Use DMA
Select a DMA Channel for the port.
The Choices: 3 (default), 1.

● Game Port Address
Game Port I/O Address.
The Choices: 201 (default), 209, Disabled.

- Midi Port Address
Midi Port Base I/O Address.
The Choices: 330 (default), 300, 290**,** Disabled.

- **Midi Port IRQ**
This determines the IRQ in which the Midi Port can use.
The Choices: 5, **10** (default)

Init Display First

With systems that have multiple video cards, this option determines whether the primary display uses a PCI Slot or an AGP Slot.
**The Choices: PCI Slot** (default), AGP.

6 Power Management Setup

The Power Management Setup Menu allows you to configure your system to utilize energy conservation and power up/power down features.

■ **Figure 6: Power Management Setup**
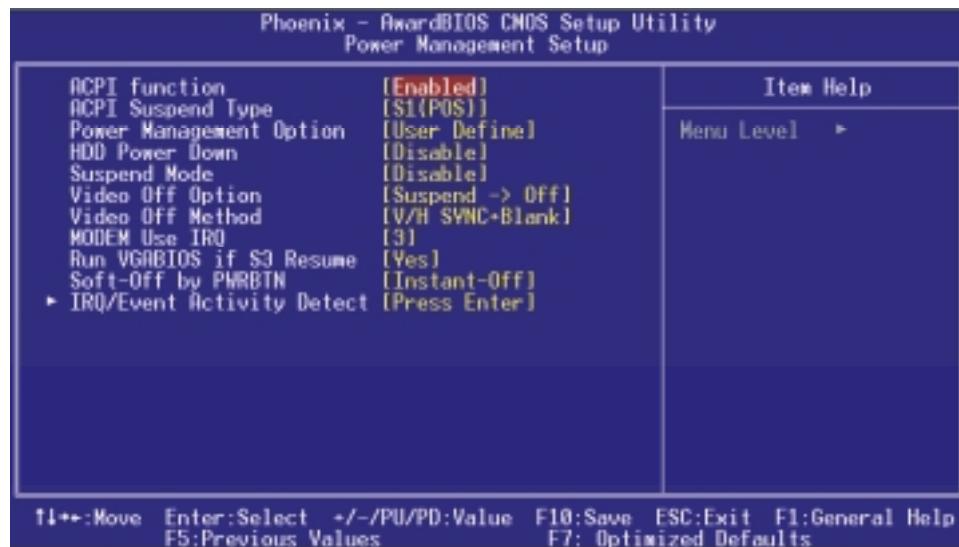
<u>**ACPI function**</u>

This item displays the status of the Advanced Configuration and Power Management (ACPI).
> **The Choices: Enabled** (default), Disabled.

<u>**ACPI Suspend Type**</u>

The item allows you to select the suspend type under the ACPI operating system.
> **The Choices: S1 (POS)** (default)   Power on Suspend
> S3 (STR)   Suspend to RAM
> S1+S3   POS+STR

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Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:
1. HDD Power Down.
2. Suspend Mode.

There are four options of Power Management, three of which have fixed mode settings
> Min. Power Saving

> Minimum power management.
> Suspend Mode = 1 hr.
> HDD Power Down = 15   min

> Max. Power Saving

> Maximum power management only available for sl CPU's.
> Suspend Mode = 1 min.
> HDD Power Down = 1 min.

> **User Define** (default)

> Allows you to set each mode individually.
> When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

HDD Power Down

When enabled, the hard disk drive will power down and after a set time of system inactivity. All other devices remain active.
The Choices: Disabled (default), 1 Min, 2 Min, 3 Min, 4 Min, 5 Min, 6 Min, 7 Min, 8 Min, 9 Min, 10 Min, 11 Min, 12 Min, 13 Min, 14 Min, 15Min.

Suspend Mode

The item allows you to select the suspend type under ACPI operating system.
The Choices: Disabled (default), 1 Min, 2 Min, 4 Min, 6 Min, 8 Min, 10 Min, 20 Min, 30 Min, 40 Min, 1 Hour.

Video Off Option

This field determines when to activate the video off feature for monitor power management.
The Choices: Suspend→Off (default), Always on.

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Video Off Method

This option determines the manner in which the monitor is goes blank.

      V/H SYNC+Blank (default)

This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

Blank Screen

This option only writes blanks to the video buffer.

DPMS

Initial display power management signaling.
The Choices: Stop Grant, PwrOn Suspend.

Modem Use IRQ

This determines the IRQ, which can be applied in MODEM use.

      The Choices: 3 (default),4 / 5 / 7 / 9 / 10 / 11 / NA.

Run VGABIOS if S3 Resume

Choosing Enabled will make BIOS run VGA BIOS to initialize the VGA card when system wakes up from S3 state . The system time is shortened if you disable the function , but system will need AGP driver to initialize the card . So , if the AGP driver of the VGA card does not support the initialization feature , the display may work abnormally or not function after S3 .

      The Choices: Auto, **Yes** (default), No.

Soft-Off by PWR-BTTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung."

      The Choices: Delay 4 Sec, **Instant-Off** (default).

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<u>IRQ/Event Activity Detect</u>

If you highlight the literal "Press Enter" next to the "IRQ/Event Activity Detect" label and then press the enter key, it will take you a submenu with the following options:

■ **Figure 6.1: IRQ/Event Activity Detect**
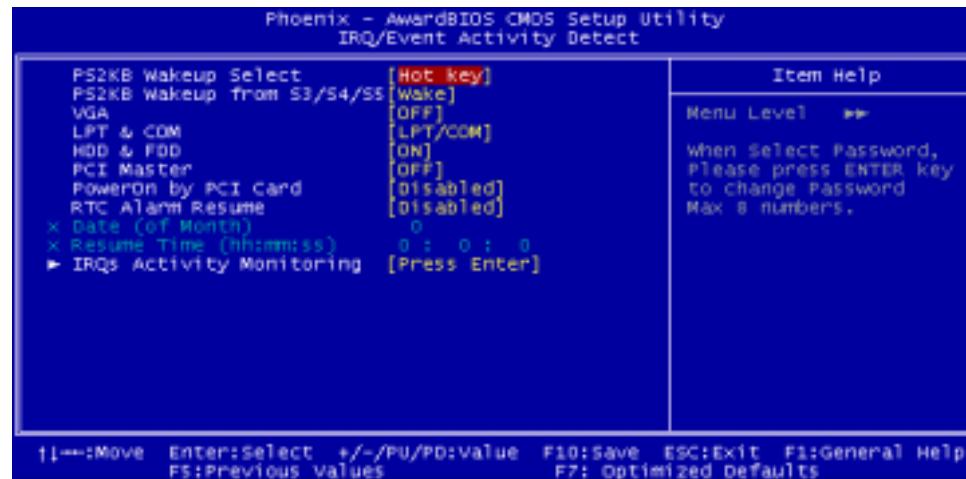
- **PS2KB Wakeup Select**
  The choice:**Hot key** (default),disabled

- **PS2KB Wakeup from S3/S4/S5**
  The choice:**Wake** (default),disabled

- **VGA**
  When set to **On**, any event occurring at a VGA Port will awaken a system which has been powered down.
  The Choices: Off (default), On.

- **LPT & COM**
  When this option is set to **On**, any event occurring at a COM(serial)/LPT (printer) port will awaken a system which has been powered down.
  The Choices: LPT/COM (default), COM, LPT, NONE.

- **HDD & FDD**
  When this option is set to **On**, any event occurring on a hard drive or a floppy drive will awaken a system which has been powered down.
  The Choices: On (default), Off.

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- **PCI Master**
When set to **On**, you need a LAN add-on card which supports the power function.
It should also support the wake-up on LAN jump.
The Choices: Off (default), On.

- **PowerOn by PCI Card**
When you select Enabled, a PME signal from PCI card returns the system to Full
ON state.
The Choices: Disabled (default), Enabled.

- **Wake Up On LAN/Ring**
To use this function, you need a LAN add-on card which support power on
function. It should also support the wake-up on LAN jump.
Disabled (default)   Wake up on LAN/Ring not supported.
Enabled Wake up on LAN/Ring supported.

- **RTC Alarm Resume**
When "Enabled", you can set the date and time at which the RTC (real-time
clock) alarm awakens the system from Suspend mode.
The Choices: Enabled, Disabled (default).

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- ● **IRQs Activity Monitoring**

Press Enter to access another sub menu used to configure the different wake up events (i.e. wake on LPT & COMM activity).

- ◼ **Figure 6.1.1: IRQS Activity Monitoring**
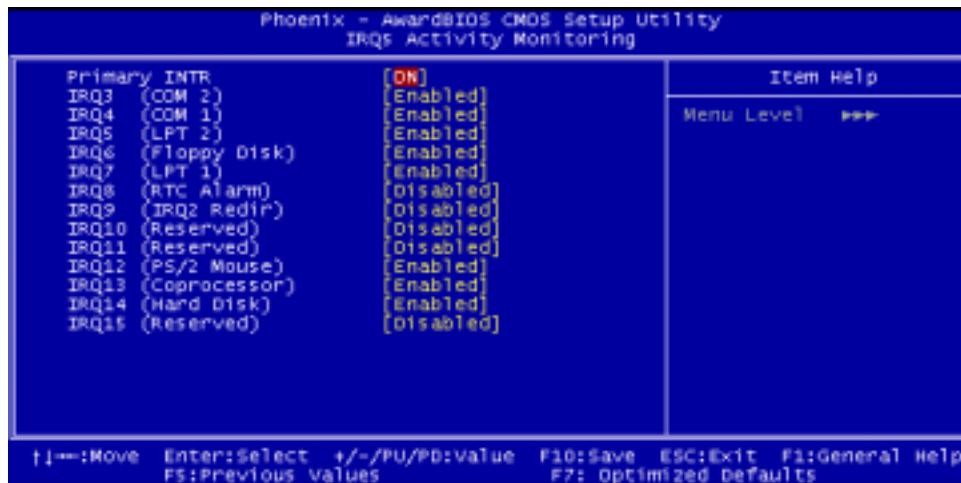
Primary INTR	On
IRQ3 (COM2)	Enabled
IRQ4 (COM1)	Enabled
IRQ5 (LPT2)	Enabled
IRQ6 (Floppy Disk)	Enabled
IRQ7 (LPT1)	Enabled
IRQ8 (RTC Alarm)	Disabled
IRQ9 (IRQ2 Redir)	Disabled
IRQ10 (Reserved)	Disabled
IRQ11 (Reserved)	Disabled
IRQ12 (PS/2 Mouse)	Enabled
IRQ13 (Coprocessor)	Enabled
IRQ14 (Hard Disk)	Enabled
IRQ15 (Reserved)	Disabled

7 PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

■ **Figure 7: PnP/PCI Configurations**
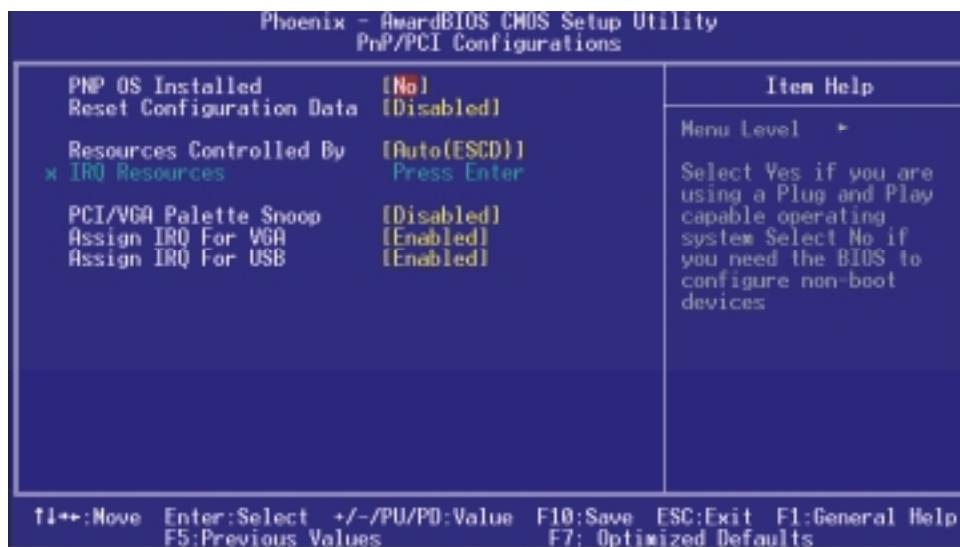
PNP OS Installed

When set to YES, BIOS will only initialize the PnP cards used for the boot sequence (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Window™ 95. When set to NO, BIOS will initialize all the PnP cards. For non-PnP operating systems (DOS, Netware™), this option must set to NO.
The Choices: No (default), Yes.

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Reset Configuration Data

The system BIOS supports the PnP feature which requires the system to record which resources are assigned and protects resources from conflict.   Every peripheral device has a node, which is called ESCD.   This node records which resources are assigned to it.   The system needs to record and update ESCD to the memory locations.   These locations (4K) are reserved in the system BIOS. If the Disabled (default) option is chosen, the system's ESCD will update only when the new configuration varies from the last one. If the Enabled option is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

The above settings will be shown on the screen only if "Manual" is chosen for the resources controlled by function.
Legacy is the term, which signifies that a resource is assigned to the ISA Bus and provides non-PnP ISA add-on cards. PCI / ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.
The Choices: Disabled (default), Enabled.

Resources Controlled By

By Choosing "**Auto(ESCD)**" (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral.By Choosing "Manual", the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

IRQ Resources

This submenu will allow you to assign each system interrupt a type, depending on the type of device using the interrupt. When you press the "Press Enter" tag, you will be directed to a submenu that will allow you to configure the system interrupts.   This is only configurable when "Resources Controlled By" is set to "Manual".

IRQ-3	assigned to	PCI Device
IRQ-4	assigned to	PCI Device
IRQ-5	assigned to	PCI Device
IRQ-7	assigned to	PCI Device
IRQ-9	assigned to	PCI Device
IRQ-10	assigned to	PCI Device
IRQ-11	assigned to	PCI Device
IRQ-12	assigned to	PCI Device
IRQ-14	assigned to	PCI Device
IRQ-15	assigned to	PCI Device

PCI / VGA Palette Snoop

Choose Disabled or Enabled.   Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller.   To do this, the non-VGA graphic controller watches for the Write access to the VGA palette and registers the snoop data.   In PCI based systems, where the VGA controller is on the PCI bus and a non-VGA graphic controller is on an ISA bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus.   The non-VGA ISA graphic controller can then snoop the data on the ISA bus.   Unless you have the above situation, you should disable this option.

Disabled (default)	Disables the function.
Enabled	Enables the function.

Assign IRQ For VGA

This item allows the users to choose which IRQ to assign for the VGA.
**The Choices: Enabled** (default), Disabled.

Assign IRQ For USB

This item allows the users to choose which IRQ to assign for the USB.
The Choices: Enabled (default), Disabled.

8 PC Health Status

■ **Figure 8: PC Health Status**
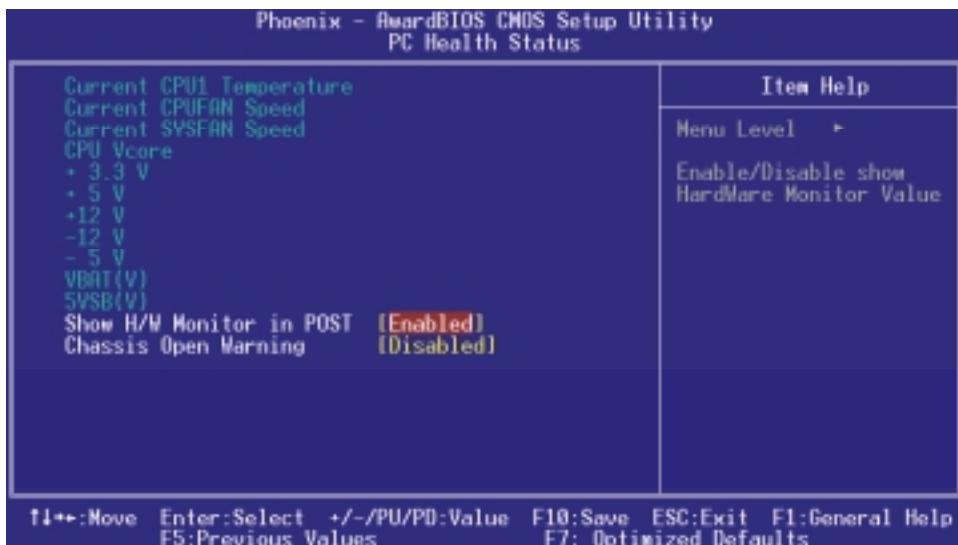
Current CPU1 Temperature

This field displays the current temperature of the CPU.

Current CPU FAN Speed

This field displays the current speed of CPU fan.

Current SYS FAN Speed

This field displays the current speed SYSTEM fan.

Shutdown Temperature

This item allows you to set up the CPU shutdown Temperature. This item only effective under Windows 98 ACPI mode.
The Choices: Disabled (default), 60℃/140F, 65℃/149F, 70℃/158F, 75℃/167F.

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CPU Vcore/ 3.3V/ +5V/ +12V/ -12V/ -5V/ 5VSB/ VBAT(V)

Detect the system's voltage status automatically.

Show H/W Monitor in POST

If your computer contains a monitoring system, it will show PC health status during POST stage. The item offers several delay time for you to choose.
**The Choices: Enabled** (default), Disabled.

Chassis Open Warning

This item allows you to enable or disable Chassis Open Warning beep.
The Choices: Disabled (Default), Enabled.

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9 Frequency/ Voltage Control

■ **Figure 9: Frequency/ Voltage Control**
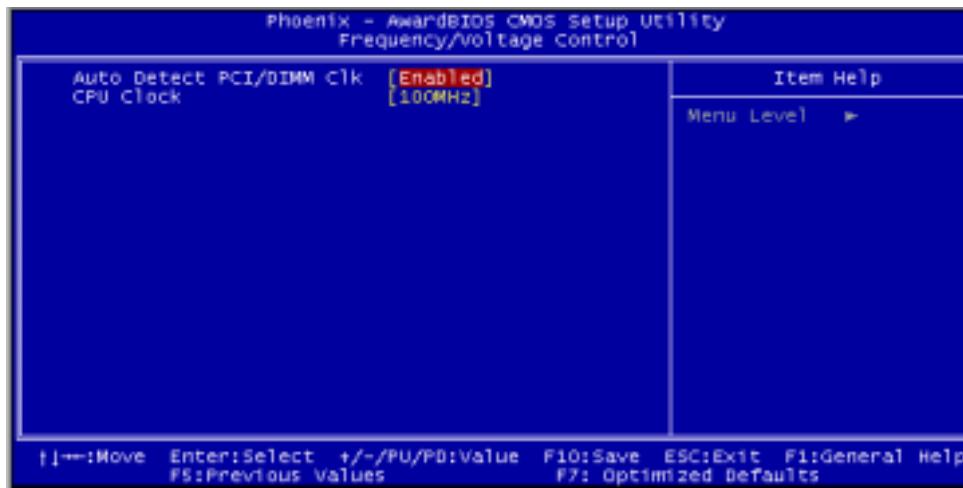
Auto Detect PCI /DIMM Clk

This item allows you to enable / disable auto Detect PCI/DIMM Clock.

The Choices:Enabled (default), Disabled.

CPU ClockW

This item allows you to select CPU Clock, and CPU over clocking.

> If unfortunately, the system's frequency that you are selected is
> not functioning, there are two methods of booting-up the system.
> Method 1: Clear the COMS data by setting the JCOMS1 ((2-3) closed)) as "ON" status. All
> the CMOS data will be loaded as defaults setting.
> Method 2: Press the <Insert> key and Power button simultaneously, after that keep-on
> pressing the <Insert> key until the power-on screen showed. This action will
> boot-up the system according to FSB of the processor.
> ※ **It's strongly recommended to set CPU Vcore and clock in default setting. If the
> CPU Vcore and clock are not in default setting, it may cause CPU or M/B damage.**